

# NoiseTools V1.5 Release Notes



Cirrus Research plc  
Technical Note No. 58



The information contained within this document is ©Copyright Cirrus Research plc 2015.

All Rights Reserved.

All Trademarks Acknowledged.

Cirrus Research plc

Acoustic House

Bridlington Road

Hunmanby

North Yorkshire

YO14 0PH

United Kingdom

Tel: 0845 230 2434 (UK)

Tel: +44 1723 891655 (International)

Fax: +44 1723 891742

Email: [sales@cirrusresearch.co.uk](mailto:sales@cirrusresearch.co.uk)

Web: [www.cirrusresearch.co.uk](http://www.cirrusresearch.co.uk)

Twitter: @cirrusresearch

Version 1.0 April 2015

1	New & updated features in NoiseTools v1.5 .....	4
1.1	General enhancements.....	4
1.2	Data Management.....	5
1.3	Instrument Management.....	6
1.4	Viewing & Analysing Measurements .....	7
1.4.1	Measurement Groups .....	7
1.4.2	Time History Display.....	8
1.5	Reporting & Exporting Measurement Data.....	9
2	Updating an existing NoiseTools installation .....	10
2.1	Database upgrade .....	10
2.2	Single user installations.....	10
2.3	Multi-user installations.....	10
3	NoiseTools System Requirements .....	11
3.1	Operating System .....	11
3.2	Minimum System Requirements .....	11
3.3	Recommended System Specification .....	11
3.4	Ideal System Specification .....	11
3.5	Storage.....	11
3.6	Sound Card.....	12
3.7	Graphics Card.....	12

## 1 New & updated features in NoiseTools v1.5

This update to the NoiseTools program adds a number of new features and enhancements.

The key points are covered in the following sections.

### 1.1 General enhancements

- Upgrade to .NET 4 Framework
  - Improved performance
  - Pre-installed on the latest versions of Windows
  
- New software update system
  - Runs in the background with no user intervention required
  - Automatically installs the latest updates without rebooting
  - Supports cloud backup features
  
- Enhanced common tasks window
  - Supports most windows and actions
  - Automatically remembers and displays the most used actions
  
- Enhanced NVIDIA CUDA support
  - Allows faster calculations by using the graphics card
  - Includes a simple benchmark to determine if it should be used
  - Used to calculate the 1:12 Octave (FFT) view from audio files where available
  
- Acoustic Fingerprint Library
  - Enhanced library screen with and without instrument
  - Enhanced template editing window
  
- Enhanced Optimus Cloud link
  - Login to the Optimus Cloud or Register via the Tools menu.
  - Remembers the Optimus Cloud account for use with instruments and backup
  - Enables the map license

## 1.2 Data Management

- Updated database engine
  - Better performance.
- Rearranged main window tabs
  - Table and Map views moved to Group View
  - Organisation view only opens when requested
- New Temporary Groups.
  - Created via 'Open as Group' feature
  - Available on most trees and measurement tables
  - Allows any Group based analysis functions to be used
  - 'Save as Group' function
- New Advanced Search features
  - Basic list filtering has been simplified
  - New search tab accessed via arrow button
  - Supports text search for name, notes, etc
  - Supports time/date and duration
  - Supports filtering by acoustic values
  - Additional flags such as 'Has Audio' and 'Has VoiceTag'
- New Measurement Transfer Wizard
  - Provides simple data selection and copying.
  - Export to and from multiple data sources
    - NoiseTools database files, locally or network share.
    - MTP files, locally or network share.
    - Other NoiseTools PCs via network connection
- Example Measurements
  - Select from multiple sets based on your application.
  - Automatically download and import.
- Attach files to measurements
  - Attach any file type to a measurement (Word, Excel, PDF etc)
  - Allows easier organisation and keeps data together
- Enhanced Audit Store
  - Simplified download process
  - Automatic verification of measurements against downloaded AuditStore records

### 1.3 Instrument Management

- Enhanced Instrument Display
  - Shows the Name/Description as well as serial number
  - 'Go to measurements' button
  - Button to open new monitoring screen
  - Enhanced selection and linking of instruments to Optimus Cloud
  
- Enhanced Live Data/Monitoring screen
  - Provides detailed status information
    - Calibration
    - Measurement state
    - Communications
  - Start/Stop function
  
- Enhanced Instrument Configuration
  - Basic Password Security
  - Enhanced Ln selection interface
  - Settings backup and restore
  - Selective restore allows importing only selected items
  - Can also be used to copy between instruments
  
- New Optimus Cloud Backup
  - Automatic backup of instrument settings whenever a change is made
  - Restore instrument settings by simply selecting a date
  
- Enhanced New Instrument Wizard
  - Provide options specific to the current instrument type

## 1.4 Viewing & Analysing Measurements

- Summary Screen.
  - Better layout to provide more space for values
  - Add support for custom summary templates
  - Included templates cover various common applications
  - More can be added later
  - Or special ones can be created per customer
  - Easier editing of People/Place/Project items
  - Clearer Audit Store display
  - Automatically checks values
- Simplified Audio Thumbnails
  - Much clearer and faster display
- Frequency bands (1:1, 1:3 & 1:12 Octave) view
  - Enhanced time selection
  - Enhanced graph display
  - Highlighting of the highest, tonal and critical bands
- Enhanced frequency analysis
  - Better 3D performance
  - Enhanced FFT graph
- Hearing Defender UI Improvements
  - Simpler selection, and deselection
  - Enhanced UI layout
  - Customisable de-rating factor
  - Customisable under/over-protection thresholds
- Periodic Calculator
  - Now built in as a tab
  - User interface improvements.
  - Added support for Exposure (LE) calculations.
- Details view
  - Additional measurement information display
  - Additional metrics
  - List view with categories
  - Markers list moved to time history tab

### 1.4.1 Measurement Groups

- Enhanced screen layout
  - More displays are now tabs.
    - Map view (where available)
    - Comparison view
    - Periodic Calculator
  - Customisable displays using templates
  - Independent of measurements but uses the same process.

- New measurement comparison view
  - Improved layout
  - More options to choose what is displayed
  - Enhanced values list
  - Category view
- Enhanced Group details view
  - Uses categories

### **1.4.2 Time History Display**

- New Time History Graph
  - Supports rendering of data with different rates
  - Supports overall values
  - Enhanced legend and data selection
  - New tooltips
  - Clearer labels and supports more data types
  - Enhanced marker creation options
  - New settings screen



## 1.5 Reporting & Exporting Measurement Data

- New reporting engine providing:
  - More flexibility
  - Supports more export formats (Word, Excel, PDF, XML, XPS & Powerpoint)
  - Better performance
  - Easier localisation
  - Customisable via the Report Designer tool (For details of custom reports, please contact Cirrus Research plc)
  
- Updated reports
  - Enhanced report layouts
  - Enhanced user customisation
    - Show/Hide footer
  
- New report selection page
  - Simple grid layout for easy selection
  - Thumbnail images and descriptions for reports
  - Full previews and extended descriptions available
  
- New report viewer
  - Simpler user interface
  - Automatic report preview
  - New report export functions

## 2 Updating an existing NoiseTools installation

Please read the following information carefully before installing v1.5 of NoiseTools.

### 2.1 Database upgrade

NoiseTools uses a database to store the measurement information from the instruments along with notes, comments and any other settings associated with your measurements.

To support the new information that can be stored by NoiseTools, the structure of the database has changed from that used in the previous versions of NoiseTools.

During the installation process, any existing databases will be converted to the new format so that they can be used in NoiseTools v1.5. These new database files are not compatible with the previous versions of the NoiseTools program and cannot be opened in any previous versions (v1.4 or earlier).

A backup of any existing databases will be made *before* they are converted to allow data to be recovered in the event of any problems.

These backups will be in the same folder as previously along with the new versions.

The progress of the database backup and conversion will be shown on the screen.

### 2.2 Single user installations

For single user installations (where a single installation of NoiseTools is used to access a database or databases), the program can be updated using either the DVD, downloaded from the Cirrus website ([www.cirrusresearch.co.uk/library/software](http://www.cirrusresearch.co.uk/library/software)) or by using the program update feature within NoiseTools itself.

The installer will run and will update any existing databases.

When the installation is complete, run the NoiseTools program.

### 2.3 Multi-user installations

For installation where more than one instance of NoiseTools is used to access a database or where a database is shared across a network for example, all installations of the NoiseTools program must be updated at the same time.

When the first installation of NoiseTools is updated, all of the current databases will be converted to the new format.

The new database files are not compatible with the previous versions of NoiseTools. Ensure that all installations of NoiseTools are upgraded at the same time.

### 3 NoiseTools System Requirements

The NoiseTools software supplied with the optimus sound level meters can be run on most modern PCs. To get the best from the software your PC should meet the minimum specifications below and where possible meet the recommended specifications.

If you are using functions such as the FFT analysis or 3D playback of audio recordings, having a faster PC with a dedicated NVIDIA graphics card will be beneficial.

#### 3.1 Operating System

NoiseTools will currently run on Windows XP SP3. However this is no longer supported by Microsoft, as of April 2014, and will not be supported in future versions of NoiseTools.

#### 3.2 Minimum System Requirements

- Windows 7 SP1 \*
- CPU: 2GHz Dual Core
- Memory: 2GB
- Storage: 10GB free space
- Display: 1280x800

#### 3.3 Recommended System Specification

- Windows 7 SP1 Professional/Enterprise (x64)
- CPU: 3GHz Dual Core
- Memory: 4GB
- Storage: 50GB free space
- Display: 1280x1024

#### 3.4 Ideal System Specification

- Windows 8.1 Pro/Enterprise (x64)
- CPU: 3GHz Quad Core
- Memory: 8GB
- Storage: 100GB free space
- Display: 2x 1920x1080
- Dedicated NVIDIA graphics card with CUDA support
- Dedicated sound card and external speakers

#### 3.5 Storage

- Approximately 1GB for installing NoiseTools and dependencies
- Up to 512MB for temporary files during measurement download
- 1GB per instrument per year for measurements and time history data, assuming typical usage

For constant measurements at higher data rates this will be significantly more.

Audio requires the following amounts per Hour

Standard (120MB), Studio (1.4GB)

### **3.6 Sound Card**

NoiseTools can work with on-board sound cards and even internal laptop speakers.

However for best results a dedicated card and external speakers are required.

Some on-board sound cards will not be capable of playing the studio quality 96kHz audio, all dedicated cards we have tested are capable of playing at this quality.

In some cases internal speakers are sufficient, however to playback at realistic levels, such as when using the speaker calibration feature, good quality external speakers are required.

### **3.7 Graphics Card**

NoiseTools uses the latest technologies to draw the user interface directly using the graphics card. This gives a much better looking more responsive experience and allows us to easily provide certain advanced features, such as the 3D frequency analysis view.

Most on-board graphics chips can provide more than enough power to display the basic user interface but the more advanced screens will be noticeably smoother on more powerful hardware.

NoiseTools is also able to use the latest CUDA graphics cards, from NVIDIA, to do FFT and other complex calculations. This can be many times faster than running these calculations on the main processor. This feature requires a CUDA capable card and 64bit version of Windows.